

CHECKLIST ENVIRONMENTAL ASSESMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Rock Creek 8-21 Nelson

Operator: Rock Creek Oil, Inc

Location: SE NE Section 21 T32N R5W

County: Glacier **MT;** **Field (or Wildcat):** Cut Bank

Proposed Project Date: July 2018

I. DESCRIPTION OF ACTION

Single derrick drilling rig to drill to 2900' TD, Cut Bank Formation.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Glacier County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Glacier County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T32N R5W

Montana Cadastral Website

Surface Ownership and surface use Section 21 T32N R5W

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Rock Creek Oil, Inc. would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 4 to 5 days drilling time.
Unusually deep drilling (high horsepower rig): No.

Possible H₂S gas production: Yes, slight low ppm H₂S associated with Cut Bank Production.
In/near Class I air quality area: No Class I air quality area. Closest Class I area is the Blackfoot Indian Reservation, about 1.1 miles to the southwest from this location.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using Single derrick drilling rig to drill to 2900' TD, Madison Formation. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil based mud: No, freshwater, freshwater mud system and air.

High water table: No.

Surface drainage leads to live water: No, nearest drainage is an unnamed ephemeral drainage about ½ a mile to the east. This drainage leads to Cut Bank Creek about 1 mile to the southwest.

Water well contamination: No water wells within a ½ mile radius.

Porous/permeable soils: No, sandy bentonitic soils.
Class I stream drainage: No Class I stream drainages.
Groundwater vulnerability area: No.

Mitigation:

- ☐ Lined reserve pit
- ☒ Adequate surface casing
- ☐ Berms/dykes, re-routed drainage
- ☐ Closed mud system
- ☒ Off-site disposal of solids/liquids (in approved facility)

Comments: Steel surface casing will be run to 400' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Farmland/grassland.

Steam crossings: None anticipated.

High erosion potential: No, small cut, up to 3.0' and small fill, up to 4.6', required

Loss of soil productivity: No, Location will be reclaimed if unproductive, if productive then wellsite will remain until it is plugged and reclaimed.

Unusually large wellsite (Describe dimensions): No, 250' X 250' location size required.

Damage to improvements: Slight, surface use is cultivation.

Conflict with existing land use/values: Slight, surface use cultivated field.

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☐ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☐ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation

Access Road: Access will be through Sullivan Bridge Rd and existing trails. A new access will be built into this location of about 900'.

Drilling fluids/solids: Cuttings will be buried in unlined pit on location, liquids will be allowed to dry in pit.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residence within a ½ mile radius.

Possibility of H2S: Yes, slight low ppm H2S associated with Cut Bank Oil Production.

Size of rig/length of drilling time: Single derrick, 4 to 5 days drilling time.

Mitigation:

- ☒ Proper BOP equipment
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other:

7. WILDLIFE/RECREATION

Sage Grouse: No.

Proximity to sensitive wildlife areas (DFWP identified): None

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species identified as threatened or endangered are the Bull Trout, Grizzly Bear and the Canada Lynx. Candidate specie is the Whitebark Pine. Potential is the Wolverine, Meltwater Lednian Stonefly, and Western Glacier Stonefly. NH tracker website lists Five (5) species of concern. They are the Golden Eagle, Burrowing Owl, Peregrine Falcon, Long-billed Curlew, and Westslope Cutthroat Trout.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DNRC Trust Lands)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other:

Comments: Private cultivated surface lands. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites:

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC

Substantial effect on tax base

- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

**EA Checklist
Prepared By:**

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Title: Compliance Specialist

Date: 07/19/18